//Q.No.4: Write a C++ program that creates a class called laptop. The data members of the class are brand (string), model(string), serial (int),colour (string), price (float), processor speed (float), RAM (int), screen size(float).Create member function that will set the individual values. Since the RAM canbe upgraded therefore create a function that allows you to upgrade the RAM only. In the end, create a function that will display all the data members//

#include<iostream>

using namespace std;

class Laptop

{

private:

char brand[30],model[30],color[30];

int serial,RAM;

float price,processor\_speed,screen\_size;

public:

void get\_values()

{

cout<<"Enter brand=";

cin>>brand;

cout<<"Enter model=";

cin>>model;

cout<<"Enter color=";

cin>>color;

cout<<"Enter serial=";

cin>>serial;

cout<<"Enter RAM=";

cin>>RAM;

cout<<"Enter price=";

cin>>price;

cout<<"Enter processor speed=";

cin>>processor\_speed;

cout<<"Enetr screen size=";

cin>>screen\_size;

}

void up\_graded()

{

cout<<"Old ram"<<RAM;

cout<<"Enter new ram";

cin>>RAM;

if(RAM>=2)

{

cout<<"UPGRADE"<<RAM;}

else

cout<<"Not upgraded";

}

void show()

{

cout<<"Ram is="<<RAM;

cout<<"Color is="<<color;

}

};

void main()

{

char c;

Laptop d1;

d1.get\_values();

cout<<"Do u want upgrage y/n"<<endl;

cin>>c;

if(c='y')

{

d1.up\_graded();

}

else

{

cout<<"So system specification are";

d1.show();

}

system("pause");

}

//Q.No.1: Write a program that declares a class “Distance” that includes two data members feet and inches and member functions setdist( ) that set distance as constants,getdist( ) that get distance from user and showdist( ) that display two distances.//

#include<iostream>

using namespace std;

class Distance

{ private:

int feet;

float inches;

public:

void getdist(int a,float b)

{

feet=a;

inches=b;

}

void setdist(int c,float d)

{

feet=c;

inches=d;

}

void showdist()

{

cout<<"Feet="<<feet<<endl;

cout<<"Inches="<<inches<<endl;

}

};

void main()

{

Distance d1,d2;

int f;

float i;

cout<<"Enter value of feet=";

cin>>f;

cout<<"enter value of inches=";

cin>>i;

d1.setdist(f,i);

d1.showdist();

d2.getdist(4,3.5);

d2.showdist();

system("pause");

}

//Q.NO.2: write a Program that declares a class “shapes” that contains possible data members and member functions area( ) that show area of circle and return this. Triarea( ) that display area of triangle and return//.

#include<iostream>

using namespace std;

class Shapes

{

private:

float height,radius,circle,triangle;

int base;

public:

float area(float r)

{

radius=r;

circle=3.14\*radius\*radius;

cout<<"Area of a circle="<<circle<<endl;

return circle;

}

float Triarea(int base,float height)

{

triangle=0.5\*base\*height;

cout<<"Area of triangle="<<triangle<<endl;

return triangle;

}

};

void main()

{

int b;

float h;

Shapes d1,d2;

d1.area(3.5);

cout<<"Enter base=";

cin>>b;

cout<<"Enter height";

cin>>h;

d2.Triarea(b,h);//Triarea(4,7.8)

system("pause");

}

//Q.NO.3:Write a class called rectangle. Your task is to store the length and width of the rectangle. Write a member function called increment that will add 1 to the value of length and width. Also write a function that will compute the area of the rectangle.//

//Demonstrate the use of the object in the main function//

#include<iostream>

using namespace std;

class Rectangle

{

private:

int length;

float width;

public:

void store(int l,float w)

{

length=l;

cout<<"LEngth="<<length<<endl;

width=w;

cout<<"Width="<<width<<endl;

}

void increment(int x,float y)

{

cout<<"Length="<<++x<<endl<<"Width="<<++y<<endl;

}

void area(float b,float h)

{

cout<<"Area of a rectangle="<<b\*h<<endl;

}

};

void main()

{ float base;

float height;

Rectangle r1,r2,r3;

r1.store(10,3.8);

r2.increment(11,9.0);

//r3.area(3.5,6.7);

cout<<"Enter base=";

cin>>base;

cout<<"Enter height=";

cin>>height;

r3.area( base,height);

system("pause");

}